APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,109	03/23/2006	Guillaume Bichot	PU030052	8923

24498   7590   11/25/2009
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EXAMINER
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ART UNIT	PAPER NUMBER
2474	

MAIL DATE	DELIVERY MODE
11/25/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/573,109	BICHOT ET AL.
	Examiner	Art Unit	
	BENJAMIN ELLIOTT	2474	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 September 2009</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-4 and 6-11</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-4 and 6-11</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>9/10/2009 and 10/05/2009</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

1.   In response to the Office action mailed 6/08/2009, claims 1-4 and 6-10

have been examined and are pending. Claim 5 is canceled.

Information Disclosure Statement

2.   The information disclosure statements (IDS) submitted on 9/10/2009 and

10/05/2009 have been found to be in compliance with the provisions of 37 CFR

1.97. Accordingly, the information disclosure statements have been considered

by the examiner.

Response to Arguments

3.   Applicant's arguments filed 9/08/2009 with regards to Claim 1 have been

fully considered but they are not persuasive.

Examiner respectfully disagrees with the Applicant in regards to the

identifiers of Wang associated with a path having a QoS parameter. Applicant's

newly amended claim reads:

"associating with the received frame an identifier that identifies a path
through the network having a transmission capability sufficient to provide the
determined QoS level/service level; wherein the identifier *includes* a Virtual
Local Area Network (VLAN) number..."

Wang discloses mapping a VLAN number in a LAN to an identifier in a

WLAN for maintaining a QoS of the communication (Wang: [0013]). This

association reads on an identifier including a VLAN to maintain a QoS of the

communication.

With regards to *a received frame,* Wang discloses that a VLAN tag is associated with a received frame received at a port (Wang: [0024] and [0022]). A user is assured a prescribed amount of bandwidth, wherein bandwidth control is associated with a QoS value, wherein an identifier associated with a VLAN tag maintains QoS for the communication.

Fukuda discloses selecting a path based on QoS parameters and associating an identifier of the path (Fukuda: [0053]. the QoS guarantee path establishing portion establishes one or more paths with a QoS guarantee. Flow identifiers are associated with the path that is to be selected for guaranteed QoS routing. [0176]; the QoS guarantee path establishing portion establishes a flow identifier value associated with the QoS guarantee setting of the path.). (Office action, page 4)

Examiner intensions are to show the frame of Wang may be modified with an identifier disclosed by Fukuda that discloses a path with capabilities to provide the determined QoS level. The identifiers of Wang include an association with a VLAN tag that maintains QoS for a communication.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin,* 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Examiner suggests amending the claim in such a way as to reveal the

VLAN tag or number as the only identifier for the path through the network having

a transmission capability sufficient to provide the determined QoS level.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

6.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1,

148 USPQ 459 (1966), that are applied for establishing a background for

determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at
       issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
       obviousness or nonobviousness.

7.   This application currently names joint inventors. In considering

patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that

the subject matter of the various claims was commonly owned at the time any

inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor

and invention dates of each claim that was not commonly owned at the time a

later invention was made in order for the examiner to consider the applicability of

35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35

U.S.C. 103(a).

8.   Claims 1-4 and 6-7 are rejected under 35 U.S.C. 103(a) as being

unpatentable over US Patent Publication 2005/0174943 A1 to Wang (hereinafter

"Wang") in view of US Patent Publication 2002/0067729 to Fukuda et al.

(hereinafter "Fukuda").

 Regarding Claim 1, Wang discloses **a method for controlling Quality**

of Service (QoS) levels/service levels (Wang: [0012]) **within a wired network**

associated with wireless Local Area Network (LAN) (Wang: [0012]), **the**

wired network having different paths for carrying information frames

received from at least one mobile terminal user (Wang: Figure 2. LAN 1 is

connected to switches SW1 and SW2 which have multiple communication paths

to terminals T11, T12, T13, T21, T22, and T23.), **comprising the steps of:**

receiving in the network at least one frame of information (Wang: [0024]. A

port receives a frame.);

determining a QoS level/service level for the received frame (Wang: [0013].

A load balancing decision is determined by a module based on traffic conditions

and bandwidth availability based on a corresponding class of service.);

associating with the received frame an identifier that identifies a path

through the network having a transmission capability sufficient to provide

the determined QoS level/service level, wherein the identifier includes a

Virtual Local Area Network (VLAN) number (Wang: [0013]. The module

assigns an identifier in the LAN to identifiers in a WLAN for accommodating a

path of communication between the LAN and WLAN based on the QoS. The identifiers are associated with a VLAN number.);

and routing the frame in the network in accordance with the associated identifier (Wang: [0018]. A packet is sent over the network based on the priority.).

Fukuda also discloses selecting a path based on QoS parameters and associating an identifier for the path (Fukuda: [0053]. The QoS guarantee path establishing portion establishes one or more paths with a QoS guarantee. Flow identifiers are associated with the path that is to be selected for guaranteed QoS routing. [0176]; The QoS guarantee path establishing portion establishes a flow identifier value associated with QoS guarantee setting of the path.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was to modify the frame for controlling QoS levels of Wang with identifiers that identify a path through the network having a transmission capability sufficient to provide the determined QoS level/service level as taught by Fukuda. This would benefit the method of Wang by selecting or retrieving a path with a QoS guarantee at a high speed (Fukuda: [0181]).

Regarding Claim 2, Wang discloses **the method according to claim 1 wherein the QoS level/service level is determined from the identity of the mobile terminal user that originated the frame** (Wang: [0024]. The physical address of the terminal that sent the frame can be used for mapping the identifiers of the LAN to identifiers of the WLAN for QoS.).

Regarding Claim 3, Wang discloses **the method according to claim 1**, but is silent on QoS requests from mobile users.

However, Fukuda discloses **wherein the QoS level/service level is determined in accordance with a QoS level/service level request received from the mobile terminal user** (Fukuda: [0025]. A request may be placed by a user.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was to modify the frame for controlling QoS levels of Wang with identifiers that identify a path through the network having a transmission capability sufficient to provide the determined QoS level/service level as taught by Fukuda. This would benefit the method of Wang by selecting or retrieving a path with a QoS guarantee at a high speed (Fukuda: [0181]).

Regarding Claim 4, Wang discloses **the method according to claim 1 wherein the step of receiving the information frame comprises the step of receiving an IP packet in an Ethernet Frame** (Wang: [0018]. The packet is an Ethernet data packet.).

Regarding Claim 6, Wang discloses **the method according to claim 1**, but is silent on routing to separate destinations.

However, Fukuda discloses **wherein the step of routing the frame comprises the step of routing the frame to one of a plurality of separate destinations** (Fukuda: [0021]. A route from a plurality of routes between a source and a destination is chosen based on the QoS of the route.).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was to modify the frame for controlling QoS levels of Wang with identifiers that identify a path through the network having a transmission capability sufficient to provide the determined QoS level/service level as taught by Fukuda. This would benefit the method of Wang by selecting or retrieving a path with a QoS guarantee at a high speed (Fukuda: [0181]).

Regarding Claim 7, Wang discloses **the method according to claim 1 wherein the step of routing the frame comprises the step of routing the frame to one destination across a selected one of a plurality of interfaces** (Wang: Figure 2. SW1, SW2, AP1, AP2, and AP3 collectively comprise many interfaces.).

8.   Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Publication 2002/0191572 to Weinstein et al. (hereinafter "Weinstein") in view of Fukuda, in further view of Wang.

Regarding Claim 8, Weinstein discloses **a wireless Local Area Network (LAN) for routing received information frames** (Weinstein: Abstract; [0040]. Ethernet frames are transmitted.), **comprising:**

at least one Access Point for receiving radio traffic from at least one mobile terminal (Weinstein: [0017-0018]. Each sub network comprises at least one access point. Mobile subscriber data is transmitted via gateway routers.) **and for communicating such traffic in the form of at least one information frame** (Weinstein: [0040]. Ethernet frames are transmitted according to IEEE 802.1Q

standard.);

an administrative gateway for establishing a Quality of Service level/service

level for the one information frame (Weinstein: [0084]. Paths are determined

between gateways and access points according to QoS requirements imbedded

in MPLS labels.) **and for instructing the Access Point to assign an identifier**

to the frame that identifies a path through the network having transmission

capability in accordance with the QoS level/service level established for the

frame, wherein the identifier comprises a Virtual Local Area Network

(VLAN) number (Weinstein: [0017]. Access points can be routers.);

and a switch for routing the frame to a destination selected in accordance

with the assigned identifier (Weinstein: Abstract; [0017]. A router is connected

to network switches to connect paths that are QoS-enabled.).

Weinstein is silent on associating an identifier in accordance with the QoS

level.

Fukuda discloses **selecting a path based on QoS parameters and**

associating an identifier for the path (Fukuda: [0053]. The QoS guarantee

path establishing portion establishes one or more paths with a QoS guarantee.

Flow identifiers are associated with the path that is to be selected for guaranteed

QoS routing. [0176]; The QoS guarantee path establishing portion establishes a

flow identifier value associated with QoS guarantee setting of the path. Figure 2;

The network management apparatus instructs the service access point).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was to modify the frame for controlling QoS levels of

Weinstein with identifiers that identify a path through the network having a

transmission capability sufficient to provide the determined QoS level/service

level as taught by Fukuda. This would benefit the method of Weinstein by

selecting or retrieving a path with a QoS guarantee at a high speed (Fukuda:

[0181]).

Weinstein in view of Fukuda is silent on the identifier comprising a VLAN

number.

Wang discloses **wherein the identifier assigned to the frame comprises**

a VLAN number (Wang: [0013]. The module assigns an identifier in the LAN to

identifiers in a WLAN for accommodating a path of communication

between the LAN and WLAN based on the QoS. [0023]; The association

between the LAN and the WLAN is between an identifier in the WLAN and the

VLAN tag in the LAN. The identifier is associated with a VLAN number.).

Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to modify the wireless LAN of Weinstein to

include VLAN tags as taught by Wang. This would benefit the wireless LAN by

maintaining the quality of service between a wireless LAN and a LAN (Wang:

[0022]).

Regarding Claim 9, Weinstein discloses **the wireless LAN according to**

claim 8 wherein the switch comprises a Virtual Local Area Network (VLAN)

capable Ethernet switch (Weinstein: [0050]. Each Ethernet switch incorporates

the virtual network and QoS services.), but is silent on a VLAN number

associated with the identifier.

Regarding Claim 10, Weinstein discloses **the wireless LAN according to claim 8 further including a plurality of routing gateways** (Weinstein: [0017]. The network comprises one or more gateways.), **each comprising a destination for the frame routed by the switch in accordance with the identifier assigned to the frame** (Weinstein: [0074]. The gateway receives a packet for a mobile host.).

Regarding Claim 11, Weinstein discloses **the wireless LAN according to claim 8 further including a routing gateway** (Weinstein: [0017]. The network comprises one or more gateways.), **having a plurality of interfaces** (Weinstein: Figure 6), **each interface providing a path for carrying a frame routed by the switch in accordance with the identifier assigned to the frame** (Weinstein: [0074]. The gateway receives a packet for a mobile host.).

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from

the examiner should be directed to BENJAMIN ELLIOTT whose telephone

number is (571)270-7163. The examiner can normally be reached on Monday

thru Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Aung Moe can be reached on (571)272-7314. The fax

phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free). If you would like assistance from a USPTO Customer Service

Representative or access to the automated information system, call 800-786-

9199 (IN USA OR CANADA) or 571-272-1000.

/Aung S. Moe/
Supervisory Patent Examiner, Art Unit 2474

BENJAMIN ELLIOTT
Examiner
Art Unit 2474